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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303

November 28, 2000

4WD-FFB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Kirk Stevens
Department of the Navy - Atlantic Division
Naval Facilities Engineering Command
Code 1823
Norfolk, Virginia 23511-6287

SUBJ: MCB Camp Lejeune
Draft Remedial Action Contractor's Close Out Report
Operable Unit No. 12 - Site 3

Dear Mr. Stevens:

The Environmental Protection Agency (EPA) has completed its review of the above subject document. Comments are enclosed. Some of the site information to be added to the report has been included in the body of the comments. This information was taken from the ROD and the Amended ROD for the Operable Unit, feel free to make any appropriate changes.

If there are any questions, I can be reached at (404) 562-8538.

Sincerely,

Gena D. Townsend
Senior Project Manager

cc: Dave Lown, NCDEHNR
Rick Raines, MCB Camp Lejeune

General Comments:

The Remedial Action Report should address all components of the original and amended Records of Decision. This includes the groundwater information that was included in the RODs. The sample Remedial Action Report included in the "Close Out Procedures for National Priorities Sites", EPA 540-R-98-016, OSWER Directive 9320.2-09A-P, January 2000, was used as a guide.

Specific Comments:

1. Section 1. – Missing "Regulatory and Enforcement History" and the major findings & results of investigation activities.

Add: Regulatory and Enforcement History

- OU12 is one of 20 OUs located within MCB, Camp Lejeune. OU12 contains only one site, Site 3, which is otherwise known as the Old Creosote Plant.
- June 1991 – Site Inspection conducted by Halliburton/NUS, included soil, groundwater and sediment investigations. PAH contamination detected.
- 1994 – 1995 Baker Environmental, Inc. (Baker) conducted field activities for a RI in three phases. PAH contamination identified in all phases within the wood treatment area ranging from 260 ug/kg to 2,200 ug/kg.
- Phase 1 – September 1994 consisted of surface soil investigation using enzyme linked immunosorbent assay (ELISA) for field screening.
- Phase 2 – October – December 1994 included surface soil, subsurface soil and groundwater investigation. Five shallow monitoring wells and one intermediate well were installed.
- Phase 3 – June 1995 included surface soil, subsurface soil and groundwater investigation. Five shallow, one intermediate and one deep well installed.
- RI/FS and PRAP released to Public 11/6/96.
- Public comment period 11/6/96 – 12/6/96.
- ROD signed 5/15/97 and accepted by North Carolina Department of Environment and Natural Resources (NC DENR) and the United States Protection Agency (USEPA) Region 4.
- June 20, 2000 – ROD amended signed. The selected soil remedy presented in original ROD (source removal and on-site biological treatment of PAH contaminated soils), was not effective. It also incorporates a site specific "Land Use Control Implementation Plan" (LUCIP) in accordance with the MOA (memorandum of agreement dated 5/24/99 known as the "Land Use Control Plan" (LUCAP). This is the subject of this report.

2. Section 2 – Missing "Operable Unit Background"

Add: Operable Unit Background

The remedy described in the ROD for OU12 included:

- Excavating the subsurface soil area of concern to a depth of nine feet below ground surface or to just above the water table.
- Confirmatory soil sampling in excavation area to ensure that contaminated soil has been removed to acceptable levels.
- Treating the excavated soil (app. 2,000 yd^3) using aerobic solid phase biological treatment in a bio cell.
- Backfilling the excavation with "clean" soil.

- Implement land use restrictions that will limit future land development/use at the site until the soil remediation has been completed.
- Quarterly sampling of groundwater from monitoring wells. If gw quality improves, the sampling frequency may be reduced.
- Implement aquifer use restrictions via Base Master Plan to prohibit future use of the shallow and Castle Hayne aquifers, within a 1000 ft, radius of Site 3 as potable water sources.

The cleanup goals in the ROD for soil: the soil biological treatment must reduce the contaminant levels to the USEPA Region 3 soil screening levels (1995) for protection of gw. The levels were generated to eliminate the unacceptable risk to future child and adult resident exposure to gw. Cleanup goals were described for naphthalene, 2 Methylnaphthalene, Carbazole, Benzo(a)anthracene and chrysene.

The cleanup goals in the ROD for gw: After soil treatment, gw levels will be monitored and restrictions remain in place until levels meet the 1x10^-6 risk for future child and adult gw consumption and the NCWQS.

The ROD amendment included:

- Excavating the soil from 0' to 3' bgs (app. 600 yd^3) and stockpiled for testing and potential use later as backfill.
- Excavating subsurface soil from 3' to 9' bgs within the area of concern, (app. 1340yds^3), or just above the water table.
- Transport soils to a subtitle D landfill disposal facility. Soil to be tested to confirm non-hazardous status.
- Aquifer use control will be instituted to prohibit future us as a potable water source until continuous containment of remedial goals has been achieved.
- A notice of Inactive Hazardous Substances or Waste Disposal Site (NOTICE) will be filed according to the requirements of North Carolina.

The cleanup goals for soils were amended to meet the North Carolina (S3:G1) standards for protection of groundwater.

Based on the ROD and the ROD Amendment, the remedial action work plan was accepted for implementation by EPA and the State of North Carolina.

3. **Add a "Cost Summary" Table:** as per example in the sample Remedial Action Report, pg. A-10, in the Close Out Procedure document. Also, Include the gw monitoring cost.

4. **Add a "Chronology of Events" Table:** as per example in the sample Remedial Action Report, pg. A-7, in the Close Out Procedure document. The ROD was signed 5/15/97, groundwater monitoring began in Jan. 1998, RD approved 3/31/98, second RD approved 1/25/99 and ROD amendment signed 6/20/00.